



ABSTRACT OF THE DISCLOSURE

A large-diameter core optical fiber and a small-diameter core high NA optical fiber are fusion-spliced, and the spliced portion is heated to expand the core diameter of a core of the high NA optical fiber and form a spot size transition portion, whereby spot sizes of the optical fibers are matched and relative refractive index differences thereof are made substantially identical. Subsequently, the optical fiber is cut at an arbitrary position and the spliced portion and the spot size transition portion are placed inside a ferrule with the large diameter core optical fiber arranged on a light incident and outgoing end face side of the ferrule to form an optical fiber component. The core diameter is expanded while monitoring transition loss of the spliced portion to obtain an optical fiber component having an optimal spot size transition portion without an advanced technique and without increase in transition loss.